

rated, and the four species or varieties I have mentioned with entire leaves: so that although Loureiro's *Rhiz. hexagona* were reduced, the number is about double of that given by Martius. This order is thus concentrated in India or its islands; the only known exceptions consist in the two or perhaps three species of *Rhizophora* and one *Carallia* that occur further west, and one *Ceriops* and one *Bruguieria* that are found in New Holland; but of these, two are also natives of India.

Arlary, Kinross, Dec. 1837.

XL.—On *Habenaria bifolia* and *chlorantha*. By CHARLES C. BABINGTON, M.A., F.L.S., F.G.S., &c.

To the Editor of the *Annals of Natural History*.

Dear Sir,

AT page 315 of the 4th edition of his 'Brit. Flora,' recently published, Sir W. Hooker having expressed his opinion that the *Habenaria chlorantha* of my paper (Linn. Trans. xvii. 462) is not the same as the plant figured by Reichenbach at t. 853, f. 1145, of his *Iconog. Botan.*, I feel it incumbent upon me to give my reasons for considering them as identical. The same excellent botanist appearing to doubt the correctness of my determination, that the *Orchis bifolia* of Linnæus is the same as my *H. bifolia* and *Platanthera brachyglossa*, Reich., I will add a few observations upon that subject.

Since the publication of the paper referred to I have obtained from Prof. Reichenbach himself a specimen of his *Plat. chlorantha*. It is No. 948 of his *Flora German. Exsiccata*, and has the following label appended:—"948, *Platanthera chlorantha*, Cust. and Rehb. Fl. Germ. 818. ic. 1145."

This specimen agrees exactly with those English ones contained in my herbarium. The shape of the petals, on which Sir W. Hooker lays much stress, is the same in the German and English specimens. In both they are narrower, and not so acute as in Reich. f. 1145: the above ticket shows however that the author of that plate considers my specimen as an example of the plant there figured. The colour of the flowers is known to be variable, and therefore I do not think that their not being very green in our plant is sufficient cause for

not considering it as identical with that of Reichenbach. As far as can be determined from a dried specimen, my German plant would appear to have had quite as white a hue as those gathered in this county and in other parts of England. My native specimens have the cells of the anther quite as divergent as they are represented in the figure quoted above.

Concerning *H. bifolia*, Bab., I need say but little. It accords exactly with the *only* specimen of *O. bifolia* preserved in the Linnæan Herbarium and with the figure (t. 852. f. 1144.) of Reichenbach; and I continue, after the examination of very numerous specimens of both plants, in a living state, to consider it as quite distinct from *H. chlorantha*, Cust. and Bab.

The *Pt. bifolia*, Reich., *H. fornicata*, Bab., must continue to be considered as a very doubtful plant, until we can either obtain authentic specimens from Germany or discover it in England. From not having access to specimens, I have thought myself bound to continue it as a distinct species until the permanency of its characters can be determined. I have never observed a hooded anther in any of the specimens of *H. bifolia*, Bab., which have come under my notice; and since the Linnæan Herbarium shows that Reichenbach's plant is not the true *O. bifolia*, Linn., I was obliged to give it a new name.

Sir W. Hooker not having mentioned the characteristic differences between the two native plants, I trust that I shall not do wrong by repeating them here for the information of those botanists who do not see the Linnæan Transactions.

1. *H. chlorantha*, Bab. Calcare ovario duplo longiore subclavato, labello lineari integerrimo, petalis superioribus conniventibus obtusis, anthera inferne duplo latiore truncata: loculis oblique ascendentibus et apice convergentibus. *E. B.* t. 22.
2. *H. bifolia*, Bab. Calcare ovario duplo longiore subclavato, labello lineari integerrimo, petalis superioribus conniventibus obtusis, anthera oblonga truncata: loculis parallelis. *Bab. in E. B. Supp.* t. 2806.

In the former the anther is very large and broad, the bases of its cells twice as far apart as their tops; the central line between the cells elevated into a prominent ridge in front and grooved on the back; the stigma is very broad, slightly pointed in the middle, and curved into a semicircular form.

In *H. bifolia* the anther is truncate or slightly emargi-

nate, rarely somewhat rounded at the top; its cells are nearly parallel throughout their whole length; the central line between the cells is a deep furrow in front and a keel behind, and the stigma is rather broad, truncate, folded so as to leave a channel between its pointed lobes, its middle emarginate.

*H. fornicata*, Bab., Pl. bifolia, Reich., has a hooded anther with parallel cells and the upper petals not converging.

St. John's Coll., Cambridge, May 18, 1838.

XLI.—*Floræ Insularum Novæ Zelandiæ Precursor; or a Specimen of the Botany of the Islands of New Zealand.* By ALLAN CUNNINGHAM, Esq.

[Continued from p. 216.]

EUPHORBIACEÆ, *Ad. de Juss.*

1. EUPHORBIA, L.

339. *E. glauca*, caule fruticoso, foliis ad apices ramorum confertis lanceolatis integerrimis glabris, umbella 4—6 radiata, radiis simplicibus trichotomisque, foliis floralibus oppositis ovali-acutis, involucris 4—5 fidis. *Endl. Prodr. Fl. Norf. p. 86. Forst. Prodr. n. 208. Spreng. Syst. Veg. iii. p. 790. A. Rich. Fl. Nov. Zel. p. 352. Ic. Ferd. Bauer, t. 166. (Endl.)—Kekiri gnott* of the natives, around whose houses the plant is frequent. *D'Urville.*

New Zealand (Middle Island), Astrolabe Harbour.—1827, *D'Urville.* (Northern Island), sandy shore, at the embouchure of the Hokianga river.—1820, *A. Cunningham.*

SANTALACEÆ, *R. Br.*

1. MIDA, (*Thesium, Linn.*)

*Perianthium* 5-partitum, persistens, glandulosum. *Disco epigyno* nullo.

*Stam.* 5, extus fasciculo gracili villorum munita. *Antheræ* biloculares.

*Stigma* 3—4 lobum. *Nux* corticata coronata. *R. Br. in obs.*:—Arbusculæ glabræ, ramis ramulisque plerumque alternis. *Folia alterna, quandoque subopposita, utrinque glabra, nitida, venosa.* Flores racemosi axillares s. terminales. Nomen vernaculum *Mida*, unde nom. generis.

*R. Cunningham.*

340. *M. salicifolia*, foliis angusto-lanceolatis attenuatis.

New Zealand (Northern Island). A slender tree fifteen feet high, bearing flower and fruit in October, in the forests of Wangaroa.—1826, *A. Cunningham.*—1834, *R. Cunningham.*

341. *M. eucalyptoides*, foliis lanceolatis acuminatis.

New Zealand (Northern Island). A small tree fifteen to twenty feet high, in fruit in October and November in shady woods at Wangaroa.—1826, *A. Cunningham.*